Pinus ponderosa / Carex inops ssp. heliophila Woodland

COMMON NAME	Ponderosa Pine / Long-stolon Sedge Woodland
SYNONYM	Ponderosa Pine/Sunsedge Woodland
PHYSIOGNOMIC CLASS	Woodland (II)
PHYSIOGNOMIC SUBCLASS	Evergreen woodland (II.A)
PHYSIOGNOMIC GROUP	Temperate or subpolar needle-leaved evergreen woodland (II.A.4)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural (II.A.4.N)
FORMATION	Rounded-crowned temperate or subpolar needle-leaved evergreen woodland (II.A.4.N.a)
ALLIANCE	*Pinus ponderosa* Woodland Alliance
CLASSIFICATION CONFIDENCE LEVEL	1
USFWS WETLAND SYSTEM	Upland

RANGE

Globally

This association is found in Montana, Wyoming, western South Dakota, and Colorado.

Wind Cave National Park

The ponderosa pine/sunsedge community is widespread at Wind Cave NP. It is common in the western half of the Park and on Boland Ridge.

ENVIRONMENTAL DESCRIPTION

Globally

This community is often found on gentle and moderate south to west facing slopes (Hansen and Hoffman 1988, Hoffman and Alexander 1987).

Wind Cave National Park

Ponderosa pine/sunsedge stands typically occur on moderate to steep mid- and upper slopes of all aspects.

MOST ABUNDANT SPECIES

Globally

Stratum	Species
Tree canopy	*Pinus ponderosa*
Tree sub-canopy	*Juniperus scopulorum, Quercus macrocarpa*
Herbaceous	*Carex inops* ssp. *heliophila*

Wind Cave National Park

Stratum	Species
Tree canopy	*Pinus ponderosa*
Herbaceous	*Carex inops* ssp. *heliophila*

CHARACTERISTIC SPECIES

Globally

Carex inops ssp. *heliophila*

Wind Cave National Park

Carex inops ssp. *heliophila, Pinus ponderosa*

VEGETATION DESCRIPTION

Globally

The tree canopy and subcanopy are dominated by *Pinus ponderosa. Juniperus scopulorum* and *Quercus macrocarpa* are occasionally found in the subcanopy. Shrubs are infrequent in this type. The herbaceous layer is dominated by *Carex inops* ssp. *heliophila*, with inclusions of *Danthonia spicata, Schizachyrium scoparium,* and *Pseudoroegneria spicata* -- generally in areas with more open canopies. At Wind Cave NP, herbaceous cover is most commonly is in the 25-50% range and occasionally greater, with sunsedge dominant. Other common herbaceous species include *Artemisia ludoviciana, Danthonia spicata, Oryzopsis micrantha, Nassella viridula*, and *Poa pratensis* (Marriott personal communication 1999).

Wind Cave National Park

Stands of ponderosa pine/sunsedge typically have an open canopy of ponderosa pine, with cover between 20 and 50%. A subcanopy of smaller pines may be present. Shrub cover is sparse, usually less than 10%, with prairie sagebrush (Artemisia frigida), downy indigobush (Amorpha canescens), squaw-bush (Rhus trilobata) and poison ivy (Toxicodendron pubescens) the more frequently encountered species. Herbaceous cover most commonly is in the 25-50% range and occasionally greater, with sunsedge dominant. Other common herbaceous species include white sagebrush (Artemisia ludoviciana), poverty oatgrass (Danthonia spicata), little mountain-ricegrass (Oryzopsis micrantha), green needlegrass (Nassella viridula) and Kentucky bluegrass (Poa pratensis).

Tree cover is somewhat variable, with dense stands of young pine occasionally present. These young doghair stands are mapped separately on the Wind Cave vegetation map.

OTHER NOTEWORTHY SPECIES

CONSERVATION RANK G3

DATABASE CODE CEGL000849

MAP UNITS The ponderosa pine/sunsedge community is one of the types included in map units 45 and 48, ponderosa pine woodland complex I and II, on the Wind Cave vegetation map. It is not mapped separately. Stands of dense young doghair are mapped as 49, young ponderosa pine dense cover complex.

COMMENTS

Wind Cave National Park

This type grades into both ponderosa pine/little bluestem and ponderosa pine/western wheatgrass types. Some stands are difficult to classify. Dense stands of young pine are occasionally present. These young doghair stands are mapped separately on the Wind Cave vegetation map.

The ponderosa pine/sunsedgecommunity is common at Wind Cave NP, and many stands were surveyed in preparing the vegetation map. Sunsedge peaks relatively early in the growing season, often in June. Later in the season its cover decreases, and the cover of other graminoids may increase. What appears to be a ponderosa pine/sunsedge stand in June may become ponderosa pine with other graminoids dominant later in the summer.

REFERENCES

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